THE UNITED STATES DEPARTMENT OF ENERGY/NATIONAL NUCLEAR SECURITY ADMINISTRATION HAS COMPLETED A FIVE-YEAR REVIEW OF THE HIGH EXPLOSIVES PROCESS AREA OPERABLE UNIT AT LAWRENCE LIVERMORE NATIONAL LABORATORY'S SITE 300

The U.S. Department of Energy (DOE) /National Nuclear Security Administration has completed the second Five-Year Review of its environmental cleanup of the High Explosives Process Area Operable Unit at Lawrence Livermore National Laboratory's (LLNL) Site 300.

THE REVIEW PROCESS

Superfund law requires that the protectiveness of cleanup actions be evaluated every five years when contaminants remain at the site above levels that allow unrestricted access. The purpose of the Five-Year Review is to evaluate the progress of the cleanup remedy towards achieving the Site's cleanup objectives, and whether the remedy continues to be protective of human health and the environment.

The Five-Year Review report summarizes the nature and extent of contamination and describes DOE's progress in cleaning up the High Explosives Process Area Operable Unit. DOE's final Five-Year Review report for the High Explosives Process Area Operable Unit is now available to the public at the LLNL Environmental Repository in the Tracy Public Library, 20 East Eaton Avenue, Tracy, CA 95377 [tel. (209) 835-2221]; the LLNL Discovery Center, Greenville Road at East Gate Drive, Livermore, CA 94551, [tel. (925) 422-4599]; and online at http://www-envirinfo.llnl.gov/.

SITE HISTORY

LLNL's Site 300 is a U.S. DOE experimental test facility operated by Lawrence Livermore National Security, LLC. Site 300 is used for the research, development, and testing of high explosive materials. Site 300 is located in the Altamont Hills between Livermore and Tracy, California. Site 300 was placed on the National Priorities List in 1992. The High Explosives Process Area Operable Unit is one of nine operable units at Site 300 where contaminants have been released to the environment from past operations. A Site-Wide Record of Decision was signed in 2008 that established the cleanup remedy and cleanup standards for the High Explosives Process Area Operable Unit. A previous Five-Year Review was completed in 2007. The High Explosives Process Area has been used since the 1950s for the chemical formulation, mechanical pressing, and machining of high explosives compounds into shaped detonation charges. Volatile organic compounds, high explosive compounds, perchlorate, and nitrate have been released to the environment from past operations.

CLEANUP OBJECTIVE

The selected remedy for the High Explosives Process Area Operable Unit includes, (1) monitoring ground water to evaluate the effectiveness of the remedy in achieving cleanup standards, and to ensure there is no impact to downgradient water-supply wells, (2) institutional controls, such as access/land-use restrictions and measures to prevent use of contaminated ground water and onsite worker exposure to contaminants volatilizing from surface water, (3) extracting and treating volatile organic compounds, high explosive compounds, and perchlorate in ground water to mitigate unacceptable volatile organic compounds inhalation risk

for onsite workers, prevent further impacts to ground water and offsite plume migration, and reduce contaminant concentrations in ground water to cleanup standards, and (4) monitored natural attenuation of nitrate in ground water.

FIVE-YEAR REVIEW RESULTS

The remedy at the HE Process Area Operable Unit currently protects human health and the environment in the short-term because there is no current exposure to site contamination and remedial treatment systems are effectively treating ground water. Exposure pathways that could result in unacceptable risk to onsite workers are being controlled by the implementation of institutional controls, the Health and Safety Plan, and the Contingency Plan. However, in order for the remedy to be protective in the long-term, institutional controls will be implemented to prevent potential future exposure to offsite ground water contamination.

FOR MORE INFORMATION:

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